one other one of the cam followers by automatically releasing the anvil assembly from the apparatus after the spreading pins have spread the ring portion.

29. The apparatus of claim 24, wherein the first organ is a blood vessel having a sidewall, the orifice is an incision in the sidewall, and the cam-driven assembly includes:

at least one incision-lengthening blade, wherein the cam-driven assembly is configured to respond to motion of at least one other one of the cam followers by causing the elements to advance the incision-lengthening blade distally into engagement with the sidewall to extend the incision, thereby forming an extended incision of precisely known overall length, at a tine after the tips of the tines have pierced said tissue but before the tines have been advanced into engagement with the anvil.

30. The apparatus of claim 23, wherein the cam element is a plate having openings that extend therethrough, said openings defining the cam tracks.

31. The apparatus of claim 22, also including an anvil having a stem, wherein the anvil mounting assembly releasably holds the stem such that the anvil is positioned to be advanced into the first organ.

32. The apparatus of claim 31, wherein the ring has a first number of tines, and the anvil has a surface which defines said first number of recesses, each of the recesses being shaped and positioned to receive and curl a different one of the tines when said tines are advanced into engagement with said anvil.

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